d) directing the fraction CD having a higher concentration either to the flow passing to the chemical recovery CR, the digestion plant or to a point in the process in which at least one of the dry-solids, COD and alkali content of the liquid phase is at least as high as that of the fraction CD.

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REMARKS

Entry of the amendment instruction above, and favorable reconsideration and allowance of this application are requested.

At the outset, the Examiner will note that formal drawings have been submitted as requested. Also as requested, drawing FIGURE 1 has been labeled "prior art". Acknowledgement of the receipt and sufficiency of the formal drawings is therefore requested.

By way of the amendment instruction above, claim 1 has been amended so as to define that a portion LI from the wash liquid/filtrate is taken between the digester and the process stage located immediately after the oxygen delignification stage (10) and the washer (12) of the delignification stage. Claims 2-3 and 14 have been cancelled. Thus, claims 1, 4-13 and 15-19 remain pending herein for which favorable reconsideration on the merits is requested.

The only issue remaining to be resolved in this application is the rejection advanced against previous claims 1-19 under 35 USC §103(a) as allegedly being unpatentable over WO 95/04188 or WO 94/12720 in view of the "admitted prior art".

In order to more fully understand the "admitted prior art", it may be helpful if more detailed comments with regard to the Tuorni reference were initially considered. In this regard, applicants note that Tuomi discusses washers from where one is able to withdraw several filtrates. However, the washer of Tuomi has two or three stages. It should be understood that, if a washer is a single stage washer a certain portion of

liquid is used only once within the washer. On the other hand, in a two-stage washer the liquid is used twice, whereas in a three-stage washer the liquid is used three times. In other words, in the washer of Tuomi the washing liquid is recirculated countercurrently within the same washer several times, at least once. Applicants have attached hereto a scheme for illustrating the liquid circulation of Tuomi in a more easily understandable form. In the process of Tuomi and in the present FIGURE 1 (the "admitted prior art" employed by the Examiner), the washing can be really performed in several stages in one washer and a filtrate from each stage is recovered, but after that the filtrates recovered are not treated in a separate separation device. Steps b) - d) of pending claim 1 herein are thus not disclosed by these references in which no portion LI or fractions CC and CD are separated from the filtrates, but the filtrates as such (without any further treatment) are passed to the points they are used.

The Examiner states that the applicants' argument that the wash filtrates of WO 95/04188 are not countercurrent to the pulp is not convincing. However, applicants have not argued that the wash filtrates of WO 95/04188 are not countercurrent. What applicants have stated is that the filtrate flows 6, 7 and 8 are produced *after* the process stage immediately following the delignification stage and the washer of the delignification stage in the flow direction of the pulp. For instance, in Figure 3 of WO 95/04188, the washer 10 and the filtrate 3 discharged from this washer are located after the process stage 9 which immediately follows the delignification and the delignification washer 17. In this reference, a part (5) of the filtrate 3 is taken to evaporation, but such a method is *not* in accordance with the present invention. The COD level of oxygen delignification does not decrease in the process described by WO 95/04188.

The crux of the disclosure in WO 94/12720 is concentrated on describing an extra recovery process (11), in which counter-currently circulated effluents from oxygen delignification and bleaching are treated. A characterizing feature of the process of WO 94/12720 is that brown stock (unbleached pulp) washing (2) ends up with a wash press (3), the filtrate of which flows counter-currently through the brown stock washing and screening (2) to the digestion (1). In the process of WO 94/12720, liquid from the washing of a metal removal stage (6) before the oxygen delignification (7) is evaporated

(11) and condensate from the evaporation is supplied as washing liquid (4A, 4) to the wash press (3) and as washing liquid (10) to the last stages (9) of the bleaching sequence. A basic difference between the WO 94/12720 and the present invention is that the present invention relates to a process in which clean washing liquid is brought to the end of the process and transferred counter-currently relative to the flow direction of the fiber suspension through several washing stages at least partly to the digester and from there further to chemical recovery CR as defined in claim 1. In WO 94/12720 washing liquid does not flow countercurrently from the washer (8) of the oxygen delignification (7) as far as to the digester, but the washing liquid (10) brought to the bleaching (9) is partly recovered in flow 6D or recirculated from the Z washing stage 91 (Fig. 2) back to the EDTA stage (6) in flow (5) (page 10, lines 25-29). Another washing liquid (i.e., flow 4) is introduced to the wash press (3). On the contrary, in the present invention washing liquid flows at least partly through the whole process to the digester -- i.e. in the applicants' process, the filtrate coming from the washer 12 downstream of the oxygen delignification stage 10 is directed to the brown stock washer 8. In WO 94/12720 the whole flow of washing liquid (6D) from the washing stage 6C (Fig. 2) is directed to evaporation.

In view of the amendments and remarks above, applicants suggest that all claims now pending in this application are in condition for allowance. Official Notice to that effect is solicited.

Respectfully submitted,

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APPENDIX I

Marked-Up Version of Amended Claims Pursuant to 37 CFR §1.121(c)

1. (Twice Amended) A method of treating pulp comprising a pulp digestion process which includes supplying wood material into a digester (2), and a brown stock washing process which includes discharging brown stock from the digester to a brown stock washer (8) to obtain washed pulp, and treating the washed pulp in an oxygen delignification stage (10) and in a washer (12) of the oxygen delignification stage whereby the pulp digestion and [brown stock] washing processes mainly employ counter-current washing in which clean wash liquid is brought to the end of the process and filtrate of the process is transferred counter-currently relative to the flow direction of the pulp through several washing stages at least partly to the digester (2) and from there further to chemical recovery CR, and wherein the method further comprises lowering the COD-level in the oxygen delignification stage (10) according to the following steps:

a) between the digester and [before] a process stage immediately following the oxygen delignification stage (10) and the washer (12) of the delignification stage in the flow direction of the pulp, separating a portion LI from the wash liquid/filtrate to be recycled counter-currently relative to the flow direction of the pulp;

b) treating the portion LI of the filtrate in a separation device (114, 214, 314, 414, 514) in order to produce two fractions CC and CD having a concentration difference in the liquid phase measured by a difference in at least one of dry solids, COD, and alkali;

c) returning the fraction CC having a lower concentration either substantially to the same point in the process from which the portion LI of the filtrate was extracted according to step (a), or to some other point in the process in order to lower the COD-level in the oxygen delignification stage;

d) directing the fraction CD having a higher concentration either to the flow passing to the chemical recovery CR, the digestion plant or to a point in the process in which at least one of the dry-solids, COD and alkali content of the liquid phase is at least as high as that of the fraction CD.